State of Montana
Department of Environmental Quality
Helena, Montana 59620

AIR QUALITY OPERATING PERMIT NUMBER OP1551-02

Administrative Amendment Application Received: **October 15, 2003**
Application Deemed Administratively Complete: **October 15, 2003**
Application Deemed Technically Complete: **October 15, 2003**
AFS Number: **030-021-0005A**

Date of Decision: **November 7, 2003**
Effective Date: **December 9, 2003**
Expiration Date: **October 15, 2004**

In accordance with the Montana Code Annotated sections 75-2-217 and 218, and the Administrative Rules of Montana (ARM) Title 17, Chapter 8, Subchapter 12, Operating Permit Program, ARM 17.8.1201, *et seq*.,

Montana Dakota Utilities Co.
Glendive Generating Station
SE ¼ and Lot 4 of Section 15, Township 15 North, Route 55 East in Dawson County
2001 N. Merrill Ave.
Glendive, Montana 59330

hereinafter referred to as "MDU," is authorized to operate a stationary source of air contaminants consisting of the emission units described in this permit. Until this permit expires or is modified or revoked, MDU is allowed to discharge air pollutants in accordance with the conditions of this permit. All conditions in this permit are federally and state enforceable unless otherwise specified. Requirements that are state-only enforceable are identified as such in the permit. A copy of this permit must be kept on site at the above named facility.

Issued by the Department of Environmental Quality

_____ _____
Signature Date

Permit Issuance and Appeal Process: In accordance with ARM 17.8.1210(j), the Department of Environmental Quality's (Department) decision regarding issuance of an operating permit is not effective until 30 days have elapsed from the date of the decision issued November 7, 2003. The decision may be appealed to the Board of Environmental Review by filing a request for a hearing within 30 days after the date of decision. If no appealed is filed then the Department will send notification and a final permit cover page to be attached to this document stating that the permit is final. Questions regarding the final issuance date and status of appeals should be directed to the Department at (406) 444-3490.

Montana Air Quality Operating Permit
Department of Environmental Quality
Permitting and Compliance Division
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Terms not otherwise defined in this permit or in the Definitions and Abbreviations appendices of this permit have the meaning assigned to them in the referenced regulations.

Section I - General Information

Company Name: **Montana-Dakota Utilities Co. (MDU)**

Mailing Address: **400 North Fourth Street**

City: **Bismarck** State: **North Dakota** Zip: **58501**

Plant Name: **Glendive Generating Station**

Plant Location: **SE ¼ and Lot 4 of Section 15, Township 15 North, Route 55 East in Dawson County**

Plant Mailing Address: **2001 Merrill Ave., Glendive, MT 59330**

Responsible Official: **Bruce Imsdahl** Phone: **(701) 222-7900**

Facility Contact Person: **Rick Patzman** Phone: **(701) 222-7689**

Primary SIC Code: **4911**

Nature of Business: **Electrical power generation, transmission, and distribution.**

Description of Process: **The Montana-Dakota Utilities Co. Glendive Generating Station uses two dual-fuel turbines for generating electricity as a peaking unit.**

Section II - Summary of Emission Units

The following emission units are regulated by this permit (ARM 17.8.1211):

Emissions Unit ID	Description	Pollution Control Device/Practice
EU1	34-MW General Electric MS-6000 Turbine/Generator Peaking Plant (Natural Gas or No. 2 Fuel Oil)	none
EU2	43-MW General Electric LM-6000 Turbine/Generator Peaking Plant (Natural Gas or No. 2 Fuel Oil)	Dry-Low NO_x combustor
EU3	600-hp Detroit Diesel 7123-7300 Starting Motor	none
EU4	No.2 Fuel Oil Storage Tank (75,000 gallon capacity)	none
EU5	No.2 Fuel Oil Storage Tank (200 gallon capacity)	none

Section III - Permit Conditions

The following requirements and conditions are applicable to the facility or to specific emission units located at the facility (ARM 17.8.1211, 1212, and 1213).

A. Facility-Wide

Condition	Rule Citation	Rule Description	Pollutant/Parameter	Limit
A.1	ARM 17.8.304(1)	Visible Air Contaminants	Opacity	40%
A.2	ARM 17.8.304(2)	Visible Air Contaminants	Opacity	20%
A.3	ARM 17.8.308(1)	Particulate Matter, Airborne	Fugitive Opacity	20%
A.4	ARM 17.8.308(2)	Particulate Matter, Airborne	Reasonable Precautions	-------
A.5	ARM 17.8.308	Particulate Matter, Airborne	Reasonable Precautions Construction	20%
A.6	ARM 17.8.309	Particulate Matter, Fuel Burning Equipment	Particulate Matter	$E= 0.882 * H^{-0.1664}$ or $E= 1.026 * H^{-0.233}$
A.7	ARM 17.8.322(4)	Sulfur Oxide Emissions, Sulfur in Fuel	Sulfur in Fuel (liquid)	1lb/million Btu fired
A.8	ARM 17.8.322(5)	Sulfur Oxide Emissions, Sulfur in Fuel	Sulfur in Fuel (gaseous)	50 gr/100 CF
A.9	ARM 17.8.1212	Reporting Requirements	Compliance Monitoring	-----
A.10	ARM 17.8.1207	Reporting Requirements	Annual Certification	-----

Conditions

A.1. Pursuant to ARM 17.8.304(1), MDU shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed on or before November 23, 1968, that exhibit an opacity of 40% or greater averaged over 6 consecutive minutes unless otherwise specified by rule or in this permit.

A.2. Pursuant to ARM 17.8.304(2), MDU shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes unless otherwise specified by rule or in this permit.

A.3. Pursuant to ARM 17.8.308(1), MDU shall not cause or authorize the production, handling, transportation, or storage of any material unless reasonable precautions to control emissions of particulate matter are taken. Such emissions of airborne particulate matter from any stationary source shall not exhibit an opacity of 20% or greater averaged over 6 consecutive minutes unless otherwise specified by rule or in this permit.

A.4. Pursuant to ARM 17.8.308(2), MDU shall not cause or authorize the use of any street, road or parking lot without taking reasonable precautions to control emissions of airborne particulate matter unless otherwise specified by rule or in this permit.

A.5. Pursuant to ARM 17.8.308, MDU shall not operate a construction site or demolition project unless reasonable precautions are taken to control emissions of airborne particulate matter. Such emissions of airborne particulate matter from any stationary source shall not exhibit an opacity of 20% or greater average over six consecutive minutes unless otherwise specified by rule or in this permit.

A.6. Pursuant to ARM 17.8.309 unless otherwise specified by rule or in this permit, MDU shall not cause or authorize particulate matter caused by the combustion of fuel to be discharged from any stack or chimney into the outdoor atmosphere in excess of the maximum allowable emissions of particulate matter for existing fuel burning equipment and new fuel burning equipment calculated using the following equations:

For existing fuel burning equipment (installed before November 23, 1968): $E = 0.882 * H^{-0.1664}$

For new fuel burning equipment (installed on or after November 23, 1968): $E = 1.026 * H^{-0.233}$

Where H is the heat input capacity in MMBtu per hour and E is the maximum allowable particulate emissions rate in lbs. per MMBtu.

A.7. Pursuant to ARM 17.8.322(4), MDU shall not burn any liquid or solid fuels containing sulfur in excess of 1 pound of sulfur per million Btu fired.

A.8. Pursuant to ARM 17.8.322(5), MDU shall not burn any gaseous fuel containing sulfur compounds in excess of 50 grains per 100 cubic feet of gaseous fuel, calculated as hydrogen sulfide at standard conditions unless otherwise specified by rule or in this permit.

Reporting

A.9. On or before January 31 and July 31 of each year, MDU shall submit to the Department the compliance monitoring reports required by Section V.D of this permit. For the reports due by January 31 of each year, MDU may submit a single report provided that it contains all the information required by Sections V.B & V.D. Per ARM 17.8.1207,

> *any application form, report, or compliance certification submitted pursuant to ARM Title 17, Chapter 8, Subchapter 12 (including semiannual monitoring reports), shall contain certification by a responsible official of truth, accuracy and completeness. This certification and any other certification required under ARM Title 17, Chapter 8, Subchapter 12, shall state that,* ***"based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete."***

A.10. By January 31 of each year, MDU shall submit to the Department the compliance certification report required by Section V.B. of this permit. The annual certification report required by Section V.B. of this permit must include a statement of compliance based on the information available which identifies any observed documented or otherwise known instances of noncompliance for each applicable requirement. Per ARM 17.8.1207,

any application form, report, or compliance certification submitted pursuant to ARM Title 17, Chapter 8, Subchapter 12 (including semiannual monitoring reports), shall contain certification by a responsible official of truth, accuracy and completeness. This certification and any other certification required under ARM Title 17, Chapter 8, Subchapter 12, shall state that, ***"based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete."***

B. Turbine/Generator Peaking Plant

EU1 – 34-MW General Electric MS-6000 (Natural Gas or Diesel)

Permit Condition	Pollutant/ Parameter	Permit Limitation	Compliance Demonstration		Reporting
			Method	Frequency	
B.1, B.10, B.15, B.21	Opacity	20%	While burning refinery quality No.2 fuel oil, the method of compliance is a Method 9	As required by the Department	Semi-annual
			Otherwise, the method is burning pipeline quality natural gas	Ongoing	Semi-annual
B.2, B.11, B.16, B.21	Particulate from fuel combustion	$E=1.026*H^{-0.233}$	Refinery quality No.2 fuel oil or pipeline quality natural gas	Ongoing	Semi-annual
B.3, B.12, B.16, B.21	Sulfur compounds in fuel (gaseous)	$\frac{50 \text{ grains}}{100 \text{ SCF}}$	Burning pipeline quality natural gas	Ongoing	Semi-annual
B.4, B.13, B.17, B.21	Sulfur compound in fuel (liquid)	1pound/ million Btu fired	While burning refinery quality No.2 fuel oil, the method is a fuel analysis provided by the fuel supplier	Annual	Semi-annual
			Otherwise, the method is burning pipeline quality natural gas	Ongoing	Semi-annual
B.5.a, B.14, B.18, B.21	Operational limit when burning only pipeline quality natural gas	2620 hours	Log hours of operation and corresponding fuel used	Ongoing	Semi-annual
B.5.b, B.14, B.18, B.21	Operational limit when burning only No. 2 fuel oil	1667 hours	Log hours of operation and corresponding fuel used	Ongoing	Semi-annual

Permit Condition	Pollutant/ Parameter	Permit Limitation	Compliance Demonstration		Reporting
			Method	Frequency	
B.5.c, B.14, B.18, B.21	Operational limit when burning a combination of pipeline quality natural gas and No.2 fuel oil in the same year	"X hours" on a rolling 12-month basis "X hours" shall be determined as follows: X= 2,620 hours - 1.572 * Y hours Where X = Total adjusted hours of operation Y= number of hours burning No.2 fuel oil 2620 = Maximum hours of operation (using natural gas only) 1.572 = the ratio of emissions from burning No.2 fuel oil compared to natural gas 2620>X>1667 (hours)	Log hours of operation and corresponding fuel used	Ongoing	Semi-annual

Permit Condition	Pollutant/ Parameter	Permit Limitation	Compliance Demonstration		Reporting
			Method	Frequency	
B.6, B.15, B.19, B.21	NO_X	225 tons per rolling 12-month period using the following equation: Total Emissions (tons) = ((A hours * ERG)+(B hours * ERF))/2000 Where, A hours = actual hours of operation when combusting natural gas; B hours = actual hours of operation when combusting No. 2 Fuel Oil; ERG = hourly emission rate (lb/hr) when combusting natural gas; and ERF = hourly emission rate (lb/hr) when combusting No. 2 fuel oil. Emission rates for each hours of operation shall be calculated as follows: Emissions of Nitrogen Oxides = hours of operation using a specific fuel X stack test lb/hr.	Log hours of operation of the turbine according to fuel used Use the emission rates from the most recent source test on file with the Department Multiply the hours of operation while using natural gas by the NO_X emission rate while using natural gas as measured in the most recent source test. Multiply the hours of operation while using No.2 fuel oil by the NO_X emission rate while using No.2 fuel oil as measured in the most recent source test. Sum the NO_X emissions while burning No.2 fuel oil and the NO_X emissions while burning natural gas and divide the result by 2000.	Monthly	Semi-annual
B.7, B.16, B.20, B.21	Fuel type	Pipeline quality natural gas or refinery quality No.2 fuel oil	Log of fuel type used	Weekly	Semi-annual

Conditions

B.1. MDU shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any source that exhibits an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304(1)).

B.2. MDU shall not cause or authorize particulate matter caused by the combustion of fuel to be discharged from any stack or chimney into the outdoor atmosphere in excess of $E = 1.026 * H^{-0.233}$ for new fuel burning equipment, where: H = heat input capacity in MMBtu/hr and E = maximum allowable emission rate in lb/MMBtu (ARM 17.8.309).

B.3. MDU shall not burn any gaseous fuel containing sulfur compounds in excess of 50 grains per 100 standard cubic feet of gaseous fuel, calculated as hydrogen sulfide at standard conditions (ARM 17.8.322(5)).

B.4. MDU shall not burn any liquid fuel containing sulfur compounds in excess of 1 pound per million Btu of liquid fired (ARM 17.8.322(4)).

B.5. MDU shall not operate the General Electric MS-6000 Turbine for more than the following:

a. 2,620 hours per year on a rolling 12-month basis when combusting pipeline quality natural gas (ARM 17.8.752);

b. 1,667 hours per year on a rolling 12-month basis when combusting No.2 fuel oil (ARM 17.8.752); and

c. "X hours" on a rolling 12-month basis when pipeline quality natural gas and No.2 fuel oil are combusted during a given year. "X hours" shall be determined as follows; (ARM 17.8.752):

X = 2,620 hours - 1.572*Y hours (2620 hrs>X>1667 hrs)

Where X = Total adjusted hours of operation
Y= number of hours burning No. 2 Fuel oil
2620 = Hours of natural gas operation
1.572 =the ratio of emissions from burning No. 2 Fuel oil compared to natural gas.

B.6. Total emissions of Nitrogen Oxides (NO_X) from combusting pipeline quality natural gas, refinery quality No.2 fuel oil, or a combination of pipeline quality natural gas and refinery quality No. 2 fuel oil shall be limited to 225 tons per rolling 12-month period. Total emissions shall be determined as the total emissions emitted during actual hours of operation. Compliance is determined when total emissions are less than or equal to 225 total tons, using the following equations on a rolling 12-month basis (ARM 17.8.752):

Total emissions (tons) = ((A hours * ERG)+(B hours * ERF))/2000

Where, A hours = actual hours of operation when combusting natural gas;
B hours = actual hours of operation when combusting No. 2 Fuel Oil;
ERG = hourly emission rate (lb/hr) when combusting natural gas; and
The most recent source test submitted to the Department by MDU-Glendive for the turbine shall be used to obtain the hourly emission rate (lb/hr).

ERF = hourly emission rate (lb/hr) when combusting No. 2 fuel oil.
The most recent source test submitted to the Department by MDU-Glendive for the turbine shall be used to obtain the hourly emission rate (lb/hr).

Emission rates for each "hours of operation" shall be calculated as follows:
NO_X Emissions=hours of operation using a specific fuel X stack test (lb/hr).

B.7. MDU shall only combust pipeline quality natural gas or refinery quality No. 2 fuel oil in the turbine (ARM 17.8.752).

Compliance Demonstration

B.8. Pursuant to ARM 17.8.101(27), opacity is determined under 40 CFR Part 60, Appendix A, Method 9, or by an in-stack transmissometer complying with 40 CFR Part 60, Appendix B, Performance Specification 1. Method 9 tests must be performed in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106). Each observation period must be a minimum of 6 minutes unless any one reading is 20% or greater, then the observation period must be a minimum of 20 minutes or until a violation of the standard has been documented, whichever is a shorter period of time.

Monitoring compliance with the opacity requirement may be satisfied by performing a Method 9 Visual Emissions Observation (VEO) on the 34-MW General Electric MS-6000 combustion turbine as required by the Department while burning No.2 fuel oil. If the Department requires a Method 9 VEO, MDU may bring a person to the Glendive facility to perform the test. All source tests must be conducted in accordance with the Montana Source Testing Protocol and Procedures Manual. Otherwise, compliance with the opacity requirement can be monitored by burning pipeline quality natural gas on a continuous basis.

B.9. Monitoring compliance with the particulate from fuel combustion requirement may be satisfied by burning refinery quality No.2 fuel oil or pipeline quality natural gas on a continuous basis.

B.10. Monitoring compliance with the sulfur compounds in fuel (gaseous) requirements may be satisfied by burning pipeline quality natural gas on a continuous basis. While burning No.2 fuel oil, the sulfur compounds in fuel (gaseous) requirements do not apply.

B.11. Monitoring compliance with the sulfur compounds in fuel (liquid) requirements may be satisfied by annually providing a supplier's fuel analysis while burning No.2 fuel oil. The analysis must demonstrate that the No.2 fuel oil is less than 1 pound/million Btu fired. Otherwise, the method of compliance is burning pipeline quality natural gas on a continuous basis.

B.12. MDU shall log the hours of operation using pipeline quality natural gas by month. MDU shall log the hours of operation using No.2 fuel oil by month. By the 25th day of each month, MDU shall total the hours of operation using each type of fuel during the previous 12 months and compare the results with the operational limit(s) in Section III.B.5.

B.13. MDU shall log the hours of operation of the turbine according to the fuel used and use the emission rates from the most recent source test on file with the Department to calculate the total NO_X emissions. The calculations shall include the equations listed in Section III.B.6.

MDU shall log, by month, the corresponding mass of NO_X emitted per each fuel. By the 25th day of each month, MDU shall total the tons of NO_X generated during the previous 12 months.

B.14. MDU shall verify upon each change, with a log, the type of fuel used to operate the turbine/generator peaking plant to monitor compliance with Section III.B.7.

Recordkeeping

B.15. If Method 9 tests are conducted, the test reports must be maintained on-site (MDU-Glendive Generating Station) and must be submitted to the Department upon request.

B.16. Recordkeeping is not required to monitor compliance with ARM 17.8.309 or 17.8.322(5).

B.17. MDU shall annually update the record of the fuel analyses provided by the fuel provider for the fuel types used during the previous 12-month period, to monitor compliance with Section III.B.11 and ARM 17.8.322(4).

B.18. MDU shall log the hours of operation, by month, of the turbine according to the fuel burned (pipeline quality natural gas and No.2 fuel oil) to monitor compliance with Section III.B.5. MDU shall total the hours by the 25th day of each month for the previous 12 months. The log must be maintained on-site (MDU-Glendive Generating Station) and must be submitted to the Department upon request. In addition, MDU shall identify the date and time that fuel types are changed.

B.19. MDU shall log and total the NO_X emissions from the plant, by month, using the equation from Section III.B.6 to account for the NO_X emissions corresponding to the type of fuel burned.

B.20. MDU shall log, upon every change, the type of fuel burned to monitor compliance with Section III.B.7. The log must be maintained on-site and must be submitted to the Department upon request. The log shall include the fuel type used, the date and time that the fuel type is switched, and the initials of the person updating the log.

Reporting

B.21. The reports required by Conditions III.A.9 and III.A.10 must:

a. Verify that Method 9 tests are performed as required by the Department and that the test reports are maintained on site and submitted upon request;

b. Verify that the fuel used complies with Sections III.B.3 and 4 by submitting fuel analyses provided by the fuel provider and/or by burning pipeline quality natural gas on a continuous basis;

c. Verify that the appropriate hourly operational limit in Section III.B.5 has not been exceeded over the rolling time period;

d. Verify that the NO_X emission limit in Section III.B.6 has not been exceeded over the rolling time period;

e. Certify that only refinery quality No.2 fuel oil and/or pipeline quality natural gas are used on a continuous basis. The certification must include a statement of compliance based on the information available identifying any observed, documented, or otherwise known instances of noncompliance; and

f. Verify that all reports were submitted for acid rain in accordance with Appendix E of this permit as required by Section III.B.8 and 9.

C. Turbine/Generator Peaking Plant

EU2 – 43-MW General Electric LM-6000 (Natural Gas or Diesel)

Permit Condition	Pollutant/ Parameter	Permit Limitation	Compliance Demonstration		Reporting
			Method	Frequency	
C.1, C.10, C.20, C.28	Opacity	20%	While burning refinery quality No.2 fuel oil, the method of compliance is a Method 9	As required by the Department	Semi-annual
			Otherwise, the method is burning pipeline quality natural gas	Ongoing	Semi-annual
C.2, C.11, C.21, C.28	Particulate from fuel combustion	$E=1.026*H^{-0.233}$	Refinery quality No.2 fuel oil or pipeline quality natural gas	Ongoing	Semi-annual
C.3, C.12, C.21, C.28	Sulfur compounds in fuel (gaseous)	$\frac{50 \text{ grains}}{100 \text{ SCF}}$	Burning pipeline quality natural gas	Ongoing	Semi-annual
C.4, C.13, C.22, C.28	Sulfur compound in fuel (liquid)	$\frac{1 \text{ pound}}{\text{million Btu fired}}$	While burning refinery quality No.2 fuel oil, the method is a fuel analysis provided by the fuel supplier	Annual	Semi-annual
			Otherwise, the method is burning pipeline quality natural gas	Ongoing	Semi-annual
C.5.a, C.14, C.23, C.28	Operational limit when burning only pipeline quality natural gas	6500 hours	Log hours of operation and corresponding fuel used	Ongoing	Semi-annual
C.5.b, C.14, C.23, C.28	Operational limit when burning only No. 2 fuel oil	3254 hours	Log hours of operation and corresponding fuel used	Ongoing	Semi-annual

Permit Condition	Pollutant/ Parameter	Permit Limitation	Compliance Demonstration		Reporting
			Method	Frequency	
C.5.c, C.14, C.23, C.28	Operational limit when burning a combination of pipeline quality natural gas and No.2 fuel oil in the same year	"X hours" on a rolling 12-month basis "X hours" shall be determined as follows: X= 6500 hours - 1.998 * Y hours Where X = Total adjusted hours of operation Y= number of hours burning No.2 fuel oil 6500 = Maximum hours of operation (using natural gas only) 1.998 = the ratio of emissions from burning No.2 fuel oil compared to natural gas 6500>X>3254 (hours)	Log hours of operation and corresponding fuel used	Ongoing	Semi-annual

Permit Condition	Pollutant/ Parameter	Permit Limitation	Compliance Demonstration		Reporting
			Method	Frequency	
C.6, C.15, C.24, C.28	NO_X	247 tons per rolling 12 month period using the following equation: Total Emissions (tons) = ((A hours * ERG)+(B hours * ERF))/2000 Where, A hours = actual hours of operation when combusting natural gas; B hours = actual hours of operation when combusting No. 2 Fuel Oil; ERG = hourly emission rate (lb/hr) when combusting natural gas; and ERF = hourly emission rate (lb/hr) when combusting No. 2 fuel oil. Emission rates for each hours of operation shall be calculated as follows: Emissions of Nitrogen Oxides = hours of operation using a specific fuel X stack test lb/hr.	Log hours of operation of the turbine according to fuel used Use the emission rates from the most recent source test on file with the Department Multiply the hours of operation while using natural gas by the NO_X emission rate while using natural gas as measured in the most recent source test. Multiply the hours of operation while using No.2 fuel oil by the NO_X emission rate while using No.2 fuel oil as measured in the most recent source test. Sum the NO_X emissions while burning No.2 fuel oil and the NO_X emissions while burning natural gas and divide the result by 2000.	Monthly	Semi-annual

Permit Condition	Pollutant/ Parameter	Permit Limitation	Compliance Demonstration		Reporting
			Method	Frequency	
C.7, C.16, C.25, C.28	Fuel type	Pipeline quality natural gas or refinery quality No.2 fuel oil	Log of fuel type used	Weekly	Semi-annual
C.8, C.9, C.17, C.18, C.19, C.26, C.27	NO_X	PEM	Operating PEMS	Ongoing	Semi-annual

Conditions

C.1. MDU shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any source that exhibits an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304(1)).

C.2. MDU shall not cause or authorize particulate matter caused by the combustion of fuel to be discharged from any stack or chimney into the outdoor atmosphere in excess of $E = 1.026 * H^{-0.233}$ for new fuel burning equipment, where: H = heat input capacity in MMBtu/hr and E = maximum allowable emission rate in lb/MMBtu (ARM 17.8.309).

C.3. MDU shall not burn any gaseous fuel containing sulfur compounds in excess of 50 grains per 100 standard cubic feet of gaseous fuel, calculated as hydrogen sulfide at standard conditions (ARM 17.8.322(5)).

C.4. MDU shall not burn any liquid fuel containing sulfur compounds in excess of 1 pound per million Btu of liquid fired (ARM 17.8.322(4)).

C.5. MDU shall not operate the General Electric Turbine for more than the following:

a. 6500 hours per year on a rolling 12-month basis when combusting pipeline quality natural gas (ARM 17.8.752)

b. 3254 hours per year on a rolling 12-month basis when combusting No.2 fuel oil (ARM 17.8.752)

c. "X hours" on a rolling 12- month basis when pipeline quality natural gas and No.2 fuel oil are combusted during a given year. "X hours" shall be determined as follows:

X = 6500 hours - 3254*Y hours (6500 hrs>X>3254 hrs)

Where X = Total adjusted hours of operation
Y= number of hours burning No. 2 Fuel oil
6500 = Hours of natural gas operation
1.998 =the ratio of emissions from burning No. 2 Fuel oil compared to natural gas; (ARM 17.8.752).

C.6. Total emissions of Nitrogen Oxides (NO_X) from combusting pipeline quality natural gas, refinery quality No.2 fuel oil, or a combination of pipeline quality natural gas and refinery quality No. 2 fuel oil shall be limited to 247 tons per rolling 12-month period. Total emissions shall be determined as the total emissions emitted during actual hours of operation. Compliance is determined when total emissions are less than or equal to 247 total tons, using the following equations on a rolling 12-month basis (ARM 17.8.752):

Total emissions (tons) = ((A hours * ERG)+(B hours * ERF))/2000

Where, A hours = actual hours of operation when combusting natural gas;
B hours = actual hours of operation when combusting No. 2 Fuel Oil;
ERG = hourly emission rate (lb/hr) when combusting natural gas; and
The most recent source test submitted to the Department by MDU-Glendive for the turbine shall be used to obtain the hourly emission rate (lb/hr).

ERF = hourly emission rate (lb/hr) when combusting No. 2 fuel oil.
The most recent source test submitted to the Department by MDU-Glendive for the turbine shall be used to obtain the hourly emission rate (lb/hr).

Emission rates for each "hours of operation" shall be calculated as follows:
NO_X Emissions=hours of operation using a specific fuel X stack test (lb/hr).

C.7. MDU shall only combust pipeline quality natural gas or refinery quality No. 2 fuel oil in the turbine (ARM 17.8.752).

C.8. MDU shall comply with all requirements in the Acid Rain Appendix E of this permit (ARM 17.8.1210(3)).

C.9. Emissions shall not be permitted in excess of any allowances that MDU lawfully holds under Title IV of the FCAA or the regulations promulgated thereunder (ARM 17.8.1210(3)(a)).

a. Permit revision is not required for increases in emissions authorized by allowances acquired pursuant to the acid rain program, provided that such increases do not require a permit revision under any other applicable requirement (ARM 17.8.1210(3)(b)).

b. MDU may not use allowances as a defense to noncompliance with any other applicable requirement (ARM 17.8.1210(3)(c)).

c. Any allowances shall be accounted for according to the procedures established in regulations promulgated under Title IV of the FCAA (ARM 17.8.1210(3)(d)).

Compliance Demonstration

C.10. Pursuant to ARM 17.8.101(27), opacity is determined under 40 CFR Part 60, Appendix A, Method 9, or by an in-stack transmissometer complying with 40 CFR Part 60, Appendix B, Performance Specification 1. Method 9 tests must be performed in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106). Each observation period must be a minimum of 6 minutes unless any one reading is 20% or greater, then the observation period must be a minimum of 20 minutes or until a violation of the standard has been documented, whichever is a shorter period of time.

Monitoring compliance with the opacity requirement may be satisfied by performing a Method 9 Visual Emissions Observation (VEO) on the 43 MW General Electric combustion turbine as required by the Department while burning No.2 fuel oil. If the Department requires a Method 9 VEO, MDU may bring a person to the Glendive facility to perform the test. All source tests must be conducted in accordance with the Montana Source Testing Protocol and Procedures Manual. Otherwise, compliance with the opacity requirement can be monitored by burning pipeline quality natural gas on a continuous basis.

C.11. Monitoring compliance with the particulate from fuel combustion requirement may be satisfied by burning refinery quality No.2 fuel oil or pipeline quality natural gas on a continuous basis.

C.12. Monitoring compliance with the sulfur compounds in fuel (gaseous) requirements may be satisfied by burning pipeline quality natural gas on a continuous basis. While burning No.2 fuel oil, the sulfur compounds in fuel (gaseous) requirements do not apply.

C.13. Monitoring compliance with the sulfur compounds in fuel (liquid) requirements may be satisfied by annually providing a supplier's fuel analysis while burning No.2 fuel oil. The analysis must demonstrate that the No.2 fuel oil is less than 1 pound/million Btu fired. Otherwise, the method of compliance is burning pipeline quality natural gas on a continuous basis.

C.14. MDU shall log the hours of operation using pipeline quality natural gas by month. MDU shall log the hours of operation using No.2 fuel oil by month. By the 25th day of each month, MDU shall total the hours of operation using each type of fuel during the previous 12 months and compare the results with the operational limit(s) in Section III.C.5.

C.15. MDU shall log the hours of operation of the turbine according to the fuel used and use the emission rates from the most recent source test on file with the Department to calculate the total NO_X emissions. The calculations shall include the equations listed in Section III.C.6. MDU shall log, by month, the corresponding mass of NO_X emitted per each fuel. By the 25th day of each month, MDU shall total the tons of NO_X generated during the previous 12 months.

C.16. MDU shall verify upon each change, with a log, the type of fuel used to operate the turbine/generator peaking plant to monitor compliance with Section III.C.7.

C.17. MDU shall monitor compliance with Section III.C.8 and III.C.9 as required by the acid rain Appendix E of this permit.

C.18. If EU2's operations exceed a capacity factor of 20 percent in any calendar year or exceed a capacity factor of 10.0 percent averaged over three years, MDU shall comply with all requirements in the Acid Rain Appendix E of this permit, including but not limited to, NO_x continuous emission monitoring systems for each gas-fired non-peaking unit including the diluent gas monitoring system which may measure either O_2 or CO_2 concentration in the flue gases (40 CFR § 75.12 (a)).

C.19. MDU shall monitor compliance with the emission limitation in the Section III.C. table pursuant to the requirements of 40 CFR Part 75 and 76, and the NO_X PEMS or CEMS Appendix F of this permit.

Recordkeeping

C.20. If Method 9 tests are conducted, the test reports must be maintained on-site (MDU-Glendive Generating Station) and must be submitted to the Department upon request.

C.21. Recordkeeping is not required to monitor compliance with ARM 17.8.309 or 17.8.322(5).

C.22. MDU shall annually update the record of the fuel analyses provided by the fuel provider for the fuel types used during the previous 12-month period, to monitor compliance with Section III.C.11 and ARM 17.8.322(4).

C.23. MDU shall log the hours of operation, by month, of the turbine according to the fuel burned (pipeline quality natural gas and No.2 fuel oil) to monitor compliance with Section III.C.5. MDU shall total the hours by the 25th day of each month for the previous twelve months. The log must be maintained on-site (MDU-Glendive Generating Station) and must be submitted to the Department upon request. In addition, MDU shall identify the date and time that fuel types are changed.

C.24. MDU shall log and total the NO_X emissions from the plant, by month, using the equation from Section III.C.6 to account for the NO_X emissions corresponding to the type of fuel burned.

C.25. MDU shall log, upon every change, the type of fuel burned to monitor compliance with Section III.C.7. The log must be maintained on-site and must be submitted to the Department upon request. The log shall include the fuel type used, the date and time that the fuel type is switched, and the initials of the person updating the log.

C.26. MDU shall complete all recordkeeping for Section III.H.8 and III.H.9 as required by acid rain Appendix E of this permit.

C.27. Records shall be prepared and data kept in accordance with 40 CFR Part 75 and the NO_X CEMS Appendix F of this permit.

Reporting

C.28. The reports required by Conditions III.A.9 and III.A.10 must

a. Verify that Method 9 tests are performed as required by the Department and that the test reports are maintained on site and submitted upon request;

b. Verify that the fuel used complies with Sections III.C.3 and 4 by submitting fuel analyses provided by the fuel provider and/or by burning pipeline quality natural gas on a continuous basis;

c. Verify that the appropriate hourly operational limit in Section III.C.5 has not been exceeded over the rolling time period;

d. Verify that the NO_X emission limit in Section III.C.6 has not been exceeded over the rolling time period;

e. Certify that only refinery quality No.2 fuel oil and/or pipeline quality natural gas are used on a continuous basis. The certification must include a statement of compliance based on the information available identifying any observed, documented, or otherwise known instances of noncompliance; and

f. Verify that all reports were submitted for acid rain in accordance with Appendix E of this permit as required by Section III.C.8 and 9.

D. Starting Motor

EU3 – 600-hp Detroit Diesel 7123-7300 Starting Motor

Permit Condition	Pollutant/ Parameter	Permit Limitation	Compliance Demonstration		Reporting
			Method	Frequency	
D.1,D.4, D.7,D.10	Opacity	20%	Method 9	As required by the Department	Semi - annual
D.2,D.5, D.8,D.10	Particulate from fuel combustion	$E=1.026*H^{-0.233}$	Refinery quality No.2 fuel oil	Ongoing	Semi-annual
D.3,D.6, D.9,D.10	Sulfur compound in fuel (liquid)	1 pound / million Btu fired	fuel analysis provided by the fuel provider	Annual	Semi-annual

Conditions

D.1. MDU shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any source that exhibits an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304(2)).

D.2. MDU shall not cause or authorize particulate matter caused by the combustion of fuel to be discharged from any stack or chimney into the outdoor atmosphere in excess of $E = 1.026 * H^{-0.233}$ for new fuel burning equipment, where: H = heat input capacity in MMBtu/hr and E = maximum allowable emission rate in lb/MMBtu (ARM 17.8.309).

D.3. MDU shall not burn any liquid fuel containing sulfur compounds in excess of 1 pound per million Btu of liquid fuel fired (ARM 17.8.322(4)).

Compliance Demonstration

D.4. Monitoring the opacity requirements may be satisfied by burning only refinery quality No.2 fuel oil and conducting a Method 9 as required by the Department. All source tests must be conducted in accordance with the Montana Source Testing Protocol and Procedures Manual.

D.5. Monitoring the particulate from fuel combustion requirement may be satisfied by burning refinery quality No.2 fuel oil on a continuous basis.

D.6. MDU shall verify annually, with a fuel analysis provided by the fuel provider, that the refinery quality No.2 fuel oil (liquid) burned is less than 1 pound/million Btu fired.

Recordkeeping

D.7. Method 9 test reports must be maintained on-site and must be submitted to the Department upon request.

D.8. Recordkeeping is not required to monitor compliance with ARM 17.8.309.

D.9. MDU shall annually update the record of the fuel analyses provided by the fuel provider for the No.2 fuel oil to monitor compliance with Section III.D.6.

Reporting

D.10. The reports required by Conditions III.A.9 and III.A.10 must:

a. Verify that Method 9 tests are performed as required by the Department and that the test reports are maintained on site and submitted upon request; and

b. Verify that the fuel used complies with Sections III.D.2 and III.D.3 by submitting fuel analyses provided by the fuel provider.

E. Tanks

EU4 - No.2 Fuel Oil Storage Tank
EU5 - No.2 Fuel Oil Storage Tank

Permit Condition	Pollutant/ Parameter	Permit Limitation	Compliance Demonstration		Reporting
			Method	Frequency	
E.1, E.2, E.3, E.4	Opacity	20%	Method 9	As required by the Department	Annual

Conditions

E.1. MDU shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any source that exhibits an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304(2)).

Compliance Demonstration

E.2. Monitoring with the opacity requirements may be satisfied by conducting a Method 9, for visual opacity, as required by the Department. All source tests must be conducted in accordance with the Montana Source Testing Protocol and Procedures Manual.

Recordkeeping

E.3. Method 9 test reports must be maintained on-site and must be submitted to the Department upon request.

Reporting

E.4. MDU shall submit reports as required by Conditions III.A.9 and III.A.10. The report must verify that Method 9 tests are performed as required by the Department and that the test reports are maintained on site and submitted upon request.

Section IV - Nonapplicable Requirements

MDU did not request a shield from any of the Air Quality Administrative Rules of Montana (ARM); however, Federal Regulations identified as not applicable to the facility at the time of the permit issuance are listed below (ARM 17.8.1214). The following list does not preclude MDU from complying with any new requirement that may become applicable during the permit term.

A. Facility Wide

Federal Rule Citation	Reason
40 CFR 60, Subparts C, Ca, Cb 40 CFR 60, Subparts D, Da, Db, Dc 40 CFR 60, Subparts E-J 40 CFR 60, Subparts K, Ka, Kb 40 CFR 60, Subparts L-Z 40 CFR 60, Subparts AA-EE 40 CFR 60, Subparts GG-HH 40 CFR 60, Subparts KK-NN 40 CFR 60, Subparts PP-XX 40 CFR 60, Subparts AAA-BBB 40 CFR 60, Subparts DDD 40 CFR 60, Subparts FFF-LLL 40 CFR 60, Subparts NNN-VVV 40 CFR 61, Subparts B-F 40 CFR 61, Subparts H-L 40 CFR 61, Subparts N-R 40 CFR 61, Subparts V-W 40 CFR 61, Subpart Y 40 CFR 61, Subpart BB 40 CFR 61, Subpart FF	These requirements are not applicable because the facility is not an affected source as defined in these regulations.

B. Emission Units

MDU did not request a shield for specific emission units; therefore, a permit shield will not be granted to individual emission units.

SECTION V – GENERAL PERMIT CONDITIONS

A. COMPLIANCE REQUIREMENTS

ARM 17.8, Subchapter 12, Operating Permit Program §1210(2)(a)-(c)&(e), §1206(6)(c)&(b)

1. The permittee must comply with all conditions of the permit. Any noncompliance with the terms or conditions of the permit constitutes a violation of the Montana Clean Air Act, and may result in enforcement action, permit modification, revocation and reissuance, or termination, or denial of a permit renewal application under ARM Title 17, Chapter 8, Subchapter 12.

2. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

3. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. If appropriate, this factor may be considered as a mitigating factor in assessing a penalty for noncompliance with an applicable requirement if the source demonstrates that both the health, safety or environmental impacts of halting or reducing operations would be more serious than the impacts of continuing operations, and that such health, safety or environmental impacts were unforeseeable and could not have otherwise been avoided.

4. The permittee shall furnish to the Department, within a reasonable time set by the Department (not to be less than 15 days), any information that the Department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Department copies of those records that are required to be kept pursuant to the terms of the permit. This subsection does not impair or otherwise limit the right of the permittee to assert the confidentiality of the information requested by the Department, as provided in 75-2-105, MCA.

5. Any schedule of compliance for applicable requirements with which the source is not in compliance with at the time of permit issuance shall be supplemental to, and shall not sanction noncompliance with, the applicable requirements on which it was based.

6. For applicable requirements that will become effective during the permit term, the source shall meet such requirements on a timely basis unless a more detailed plan or schedule is required by the applicable requirement or the Department.

B. CERTIFICATION REQUIREMENTS

ARM 17.8, Subchapter 12, Operating Permit Program §1207 and §1213(7)(a)&(c)-(d)

1. Any application form, report, or compliance certification submitted pursuant to ARM Title 17, Chapter 8, Subchapter 12, shall contain certification by a responsible official of truth, accuracy and completeness. This certification and any other certification required under ARM Title 17, Chapter 8, Subchapter 12, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.

2. Compliance certifications shall be submitted by January 31 of each year, or more frequently if otherwise specified in an applicable requirement or elsewhere in the permit. Each certification must include the required information for the previous calendar year (i.e., January 1 – December 31).

3. Compliance certifications shall include the following:

   a. The identification of each term or condition of the permit that is the basis of the certification;

   b. The identification of the method(s) or other means used by the owner or operator for determining the status of compliance with each term or condition during the certification period, consistent with ARM 17.8.1212;

   c. The status of compliance with each term and condition for the period covered by the certification, *including whether compliance during the period was continuous or intermittent* (based on the method or means identified in ARM 17.8.1213(7)(c)(ii), as described above); and

   d. Such other facts as the Department may require to determine the compliance status of the source.

4. All compliance certifications must be submitted to the Environmental Protection Agency, as well as to the Department, at the addresses listed in the Notification Addresses Appendix of this permit.

C. PERMIT SHIELD

ARM 17.8, Subchapter 12, Operating Permit Program §1214(1)-(4)

1. The applicable requirements and non-federally enforceable requirements are included and specifically identified in this permit and the permit includes a precise summary of the requirements not applicable to the source. Compliance with the conditions of the permit shall be deemed compliance with any applicable requirements and any non-federally enforceable requirements as of the date of permit issuance.

2. The permit shield described in 1 above shall remain in effect during the appeal of any permit action (renewal, revision, reopening, or revocation and reissuance) to the Board of Environmental Review (Board), until such time as the Board renders its final decision.

3. Nothing in this permit alters or affects the following:

   a. The provisions of Sec. 7603 of the FCAA, including the authority of the administrator under that section;

   b. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;

   c. The applicable requirements of the Acid Rain Program, consistent with Sec. 7651g(a) of the FCAA;

   d. The ability of the administrator to obtain information from a source pursuant to Sec. 7414 of the FCAA;

e. The ability of the Department to obtain information from a source pursuant to the Montana Clean Air Act, Title 75, Chapter 2, MCA;

f. The emergency powers of the Department under the Montana Clean Air Act, Title 75, Chapter 2, MCA; and

g. The ability of the Department to establish or revise requirements for the use of Reasonably Available Control Technology (RACT) as defined in ARM Title 17, Chapter 8. However, if the inclusion of a RACT into the permit pursuant to ARM Title 17, Chapter 8, Subchapter 12, is appealed to the Board, the permit shield, as it applies to the source's existing permit, shall remain in effect until such time as the Board has rendered its final decision.

4. Nothing in this permit alters or affects the ability of the Department to take enforcement action for a violation of an applicable requirement or permit term demonstrated pursuant to ARM 17.8.106, Source Testing Protocol.

5. Pursuant to ARM 17.8.132, for the purpose of submitting a compliance certification, nothing in these rules shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether a source would have been in compliance. However, when compliance or noncompliance is demonstrated by a test or procedure provided by permit or other applicable requirements, the source shall then be presumed to be in compliance or noncompliance unless that presumption is overcome by other relevant credible evidence.

6. The permit shield will not extend to minor permit modifications or changes not requiring a permit revision (see Sections I & J).

7. The permit shield will extend to significant permit modifications and transfer or assignment of ownership (see Sections K & N).

D. MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS

ARM 17.8, Subchapter 12, operating Permit Program §1212(2)&(3)

1. Unless otherwise provided in this permit, the permittee shall maintain compliance monitoring records that include the following information:

   a. The date, place as defined in the permit, and time of sampling or measurement;

   b. The date(s) analyses were performed;

   c. The company or entity that performed the analyses;

   d. The analytical techniques or methods used;

   e. The results of such analyses; and

   f. The operating conditions at the time of sampling or measurement.

2. The permittee shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. All monitoring data, support information, and required reports and summaries may be maintained in computerized form at the plant site if the information is

made available to Department personnel upon request, which may be for either hard copies or computerized format. Strip-charts must be maintained in their original form at the plant site and shall be made available to Department personnel upon request.

3. The permittee shall submit to the Department, at the addresses located in the Notification Addresses Appendix of this permit, reports of any required monitoring by January 31 and July 31 of each year, or more frequently if otherwise specified in an applicable requirement or elsewhere in the permit. The monitoring report submitted on January 31 of each year must include the required monitoring information for the period of July 1 through December 31 of the previous year. The monitoring report submitted on July 31 of each year must include the required monitoring information for the period of January 1 through June 30 of the current year. All instances of deviations from the permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official, consistent with ARM 17.8.1207.

E. PROMPT DEVIATION REPORTING

ARM 17.8, Subchapter 12, Operating Permit Program §1212(3)(c)

The permittee shall promptly report deviations from permit requirements, including those attributable to upset conditions as defined in the permit, the probable cause of such deviations, and any corrective actions or preventive measures taken. To be considered prompt, deviations shall be reported as part of the routine reporting requirements under ARM 17.8.1212(3)(b) and, if applicable, in accordance with the malfunction reporting requirements under ARM 17.8.110, unless otherwise specified in an applicable requirement.

F. EMERGENCY PROVISIONS

ARM 17.8, Subchapter 12, Operating Permit Program §1201(13) and §1214(5), (6)&(8)

1. An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation and causes the source to exceed a technology-based emission limitation under this permit due to the unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of reasonable preventive maintenance, careless or improper operation, or operator error.

2. An emergency constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the permittee demonstrates through properly signed, contemporaneous logs, or other relevant evidence, that:

   a. An emergency occurred and the permittee can identify the cause(s) of the emergency;

   b. The permitted facility was at the time being properly operated;

   c. During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in the permit; and

   d. The permittee submitted notice of the emergency to the Department within 2 working days of the time when emission limitations were exceeded due to the emergency. This notice fulfills the requirements of ARM 17.8.1212(3)(c). This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

3. These emergency provisions are in addition to any emergency, malfunction or upset provision contained in any applicable requirement.

G. INSPECTION AND ENTRY

ARM 17.8, Subchapter 12, Operating Permit Program §1213(3)&(4)

1. Upon presentation of credentials and other requirements as may be required by law, the permittee shall allow the Department, the administrator, or an authorized representative (including an authorized contractor acting as a representative of the Department or the administrator) to perform the following:

   a. Enter the premises where a source required to obtain a permit is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;

   b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;

   c. Inspect at reasonable times any facilities, emission units, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and

   d. As authorized by the Montana Clean Air Act and rules promulgated thereunder, sample or monitor, at reasonable times, any substances or parameters at any location for the purpose of assuring compliance with the permit or applicable requirements.

2. The permittee shall inform the inspector of all workplace safety rules or requirements at the time of inspection. This section shall not limit in any manner the Department's statutory right of entry and inspection as provided for in 75-2-403, MCA.

H. FEE PAYMENT

ARM 17.8, Subchapter 12, Operating Permit Program §1210(2)(f) and ARM 17.8, Subchapter 5, Air Quality Permit Application, Operation, and Open Burning Fees §505(3)-(5) (STATE ONLY)

1. The permittee must pay application and operating fees, pursuant to ARM Title 17, Chapter 8, Subchapter 5.

2. Annually, the Department shall provide the permittee with written notice of the amount of the fee and the basis for the fee assessment. The air quality operation fee is due 30 days after receipt of the notice, unless the fee assessment is appealed pursuant to ARM 17.8.511. If any portion of the fee is not appealed, that portion of the fee that is not appealed is due 30 days after receipt of the notice. Any remaining fee, which may be due after the completion of an appeal, is due immediately upon issuance of the Board's decision or upon completion of any judicial review of the Board's decision.

3. If the permittee fails to pay the required fee (or any required portion of an appealed fee) within 90 days of the due date of the fee, the Department may impose an additional assessment of 15% of the fee (or any required portion of an appealed fee) or $100, whichever is greater, plus interest on the fee (or any required portion of an appealed fee), computed at the interest rate established under 15-31-510(3), MCA.

I. MINOR PERMIT MODIFICATIONS

ARM 17.8, Subchapter 12, Operating Permit Program §1226(3)&(11)

1. An application for a minor permit modification need only address in detail those portions of the permit application that require revision, updating, supplementation, or deletion, and may reference any required information that has been previously submitted.

2. The permit shield under ARM 17.8.1214 will not extend to any minor modifications processed pursuant to ARM 17.8.1226.

J. CHANGES NOT REQUIRING PERMIT REVISION

ARM 17.8, Subchapter 12, Operating Permit Program §1224(1)-(3), (5)&(6)

1. The permittee is authorized to make changes within the facility as described below, provided the following conditions are met.

    a. The proposed changes do not require the permittee to obtain an air quality preconstruction permit under ARM Title 17, Chapter 8, Subchapter 7;

    b. The proposed changes are not modifications under Title I of the FCAA, or as defined in ARM Title 17, Chapter 8, Subchapters 8, 9, or 10;

    c. The emissions resulting from the proposed changes do not exceed the emissions allowable under this permit, whether expressed as a rate of emissions or in total emissions;

    d. The proposed changes do not alter permit terms that are necessary to enforce applicable emission limitations on emission units covered by the permit; and

    e. The facility provides the administrator and the Department with written notification at least 7 days prior to making the proposed changes.

2. The permittee and the Department shall attach each notice provided pursuant to 1.e above to their respective copies of this permit.

3. Pursuant to the conditions above, the permittee is authorized to make Sec. 502(b)(10) changes, as defined in ARM 17.8.1201(30), without a permit revision. For each such change, the written notification required under 1.e above shall include a description of the change within the source, the date on which the change will occur, any change in emissions, and any permit term or condition that is no longer applicable as a result of the change.

4. The permittee may make a change not specifically addressed or prohibited by the permit terms and conditions without requiring a permit revision, provided the following conditions are met:

    a. Each proposed change does not weaken the enforceability of any existing permit conditions;

    b. The Department has not objected to such change;

    c. Each proposed change meets all applicable requirements and does not violate any existing permit term or condition; and

d. The permittee provides contemporaneous written notice to the Department and the administrator of each change that is above the level for insignificant emission units as defined in ARM 17.8.1201(22) and 17.8.1206(3), and the written notice describes each such change, including the date of the change, any change in emissions, pollutants emitted, and any applicable requirement that would apply as a result of the change.

5. The permit shield authorized by ARM 17.8.1214 shall not apply to changes made pursuant to ARM 17.8.1224(3) and (5), but is applicable to terms and conditions that allow for increases and decreases in emissions pursuant to ARM 17.8.1224(4).

K. SIGNIFICANT PERMIT MODIFICATIONS

ARM 17.8, Subchapter 12, Operating Permit Program §1227(1), (3)&(4)

1. The modification procedures set forth in 2 below must be used for any application requesting a significant modification of this permit. Significant modifications include the following:

   a. Any permit modification that does not qualify as either a minor modification or as an administrative permit amendment;

   b. Every significant change in existing permit monitoring terms or conditions;

   c. Every relaxation of permit reporting or recordkeeping terms or conditions that limit the Department's ability to determine compliance with any applicable rule, consistent with the requirements of the rule; and

   d. Any other change determined by the Department to be significant.

2. Significant modifications shall meet all requirements of ARM Title 17, Chapter 8, including those for applications, public participation, and review by affected states and the administrator, as they apply to permit issuance and renewal, except that an application for a significant permit modification need only address in detail those portions of the permit application that require revision, updating, supplementation or deletion.

3. The permit shield provided for in ARM 17.8.1214 shall extend to significant modifications.

L. REOPENING FOR CAUSE

ARM 17.8, Subchapter 12, Operating Permit Program §1228(1)&(2)

1. This permit may be reopened and revised under the following circumstances.

   a. Additional applicable requirements under the FCAA become applicable to the facility when the permit has a remaining term of 3 or more years. Reopening and revision of the permit shall be completed not later than 18 months after promulgation of the applicable requirement. No reopening is required under ARM 17.8.1228(1)(a) if the effective date of the applicable requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms or conditions have been extended pursuant to ARM 17.8.1220(12) or 17.8.1221(2);

   b. Additional requirements (including excess emission requirements) become applicable to an affected source under the Acid Rain Program. Upon approval by the administrator, excess emission offset plans shall be deemed incorporated into the permit;

c. The Department or the administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emission standards or other terms or conditions of the permit; or

d. The administrator or the Department determines that the permit must be revised or revoked and reissued to ensure compliance with the applicable requirements.

M. PERMIT EXPIRATION AND RENEWAL

ARM 17.8, Subchapter 12, Operating Permit Program §1210(2)(g), §1220(11)&(12), and §1205(2)(d)

1. This permit is issued for a fixed term of 5 years.

2. Renewal of this permit is subject to the same procedural requirements that apply to permit issuance, including those for application, content, public participation, and affected state and administrator review.

3. Expiration of this permit terminates the permittee's right to operate unless a timely and administratively complete renewal application has been submitted consistent with ARM 17.8.1221 and 17.8.1205(2)(d). If a timely and administratively complete application has been submitted, all terms and conditions of the permit, including the application shield, remain in effect after the permit expires until the permit renewal has been issued or denied.

4. For renewal, the permittee shall submit a complete air quality operating permit application to the Department not later than 6 months prior to the expiration of this permit, unless otherwise specified. If necessary to ensure that the terms of the existing permit will not lapse before renewal, the Department may specify, in writing to the permittee, a longer time period for submission of the renewal application. Such written notification must be provided at least 1 year before the renewal application due date established in the existing permit.

N. SEVERABILITY CLAUSE

ARM 17.8, Subchapter 12, Operating Permit Program §1210(2)(i)&(l)

1. The administrative appeal or subsequent judicial review of the issuance by the Department of an initial permit under this subchapter shall not impair in any manner the underlying applicability of all applicable requirements, and such requirements continue to apply as if a final permit decision had not been reached by the Department.

2. If any provision of a permit is found to be invalid, all valid parts that are severable from the invalid part remain in effect. If a provision of a permit is invalid in one or more of its applications, the provision remains in effect in all valid applications that are severable from the invalid applications.

O. TRANSFER OR ASSIGNMENT OF OWNERSHIP

ARM 17.8, Subchapter 12, Operating Permit Program §1225(2)&(4)

1. If an administrative permit amendment involves a change in ownership or operational control, the applicant must include in its request to the Department a written agreement containing a specific date for the transfer of permit responsibility, coverage and liability between the current and new permittee.

2. The permit shield provided for in ARM17.8.1214 shall not extend to administrative permit amendments.

P. EMISSIONS TRADING, MARKETABLE PERMITS, ECONOMIC INCENTIVES
ARM 17.8, Subchapter 12, Operating Permit Program §1226(2)

Notwithstanding ARM 17.8.1226(1) and (7), minor air quality operating permit modification procedures may be used for permit modifications involving the use of economic incentives, marketable permits, emissions trading, and other similar approaches, to the extent that such minor permit modification procedures are explicitly provided for in the Montana State Implementation Plan or in applicable requirements promulgated by the administrator.

Q. NO PROPERTY RIGHTS CONVEYED
ARM 17.8, Subchapter 12, Operating Permit Program §1210(2)(d)

This permit does not convey any property rights of any sort, or any exclusive privilege.

R. TESTING REQUIREMENTS
ARM 17.8, Subchapter 1, General Provisions §105

The permittee shall comply with ARM 17.8.105.

S. SOURCE TESTING PROTOCOL
ARM 17.8, Subchapter 1, General Provisions §106

The permittee shall comply with ARM 17.8.106.

T. MALFUNCTIONS
ARM 17.8, Subchapter 1, General Provisions §110

The permittee shall comply with ARM 17.8.110.

U. CIRCUMVENTION
ARM 17.8, Subchapter 1, General Provisions §111

The permittee shall comply with ARM 17.8.111.

V. MOTOR VEHICLES
ARM 17.8, Subchapter 3, Emission Standards §325

The permittee shall comply with ARM 17.8.325.

W. ANNUAL EMISSIONS INVENTORY
ARM 17.8, Subchapter 5, Air Quality Permit Application, Operation and Open Burning Fees §505 (STATE ONLY)

The permittee shall supply the Department with annual production and other information for all emission units necessary to calculate actual or estimated actual amount of air pollutants emitted during each calendar year. Information shall be gathered on a calendar-year basis and submitted to the Department by the date required in the emission inventory request, unless otherwise specified in this permit. Information shall be in the units required by the Department.

X. OPEN BURNING

ARM 17.8, Subchapter 6, Open Burning §604, 605 and 606

The permittee shall comply with ARM 17.8.604, 605 and 606.

Y. PRECONSTRUCTION PERMITS

ARM 17.8, Subchapter 7, Permit, Construction and Operation of Air Contaminant Sources §705, 708 and 733 (ARM 17.8.745(1) and 764(1)(b) are STATE ENFORCEABLE ONLY until approval by the EPA as part of the SIP)

1. Except as specified, no person shall construct, install, alter or use any air contaminant source or stack associated with any source without first obtaining a permit from the Department or Board. A permit is not required for those sources or stacks as specified by ARM 17.8.744(1)(a)-(k).

2. The permittee shall comply with ARM 17.8.743, 744, 745, 748, and 764.

3. ARM 17.8.745(1) specifies de minimis changes as construction or changed conditions of operation at a facility holding an air quality preconstruction permit issued under Chapter 8 that does not increase the facility's potential to emit by more than 15 tons per year of any pollutant, except (STATE ENFORCEABLE ONLY until approved by the EPA as part of the SIP):

   a. Any construction or changed condition that would violate any condition in the facility's existing air quality preconstruction permit or any applicable rule contained in Chapter 8 is prohibited, except as provided in ARM 17.8.745(2);

   b. Any construction or changed conditions of operation that would qualify as a major modification under Subchapters 8, 9 or 10 of Chapter 8;

   c. Any construction or changed condition of operation that would affect the plume rise or dispersion characteristic of emissions that would cause or contribute to a violation of an ambient air quality standard or ambient air increment as defined in ARM 17.8.804;

   d. Any construction or improvement project with a potential to emit more than 15 tons per year may not be artificially split into smaller projects to avoid air quality preconstruction permitting; or

   e. Emission reductions obtained through offsetting within a facility are not included when determining the potential emission increase from construction or changed conditions of operation, unless such reductions are made federally enforceable.

4. Any facility making a de minimis change pursuant to ARM 17.8.745(1) shall notify the Department if the change would include a change in control equipment, stack height, stack diameter, stack gas temperature, source location or fuel specifications, or would result in an increase in source capacity above its permitted operation or the addition of a new emission unit. The notice must be submitted, in writing, 10 days prior to start up or use of the proposed de minimis change, or as soon as reasonably practicable in the event of an unanticipated circumstance causing the de minimis change, and must include the information requested in ARM 17.8.745(1). (STATE ENFORCEABLE ONLY until approval by the EPA as part of the SIP)

Z. NATIONAL EMISSION STANDARD FOR ASBESTOS
40 CFR, Part 61, Subpart M

The permittee shall not conduct any asbestos abatement activities except in accordance with 40 CFR 61, Subpart M (National Emission Standard for Hazardous Air Pollutants for Asbestos).

AA. ASBESTOS
ARM 17.74, Subchapter 3, General Provisions and Subchapter 4, Fees

The permittee shall comply with ARM 17.74.301, *et seq*., and ARM 17.74.401, *et seq*. (State only)

BB. STRATOSPHERIC OZONE PROTECTION – SERVICING OF MOTOR VEHICLE AIR CONDITIONERS
40 CFR, Part 82, Subpart B

If the permittee performs a service on motor vehicles and this service involves ozone-depleting substance/refrigerant in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR 82, Subpart B.

CC. STRATOSPHERIC OZONE PROTECTION – RECYCLING AND EMISSION REDUCTIONS
40 CFR, Part 82, Subpart F

The permittee shall comply with the standards for recycling and emission reductions in 40 CFR 82, Subpart F, except as provided for MVACs in Subpart B.

1. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to §82.156.

2. Equipment used during the maintenance, service, repair or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to §82.158.

3. Persons performing maintenance, service, repair or disposal of appliances must be certified by an approved technical certification program pursuant to §82.161.

4. Persons disposing of small appliances, MVACs and MVAC-like (as defined at §82.152) appliances must comply with recordkeeping requirements pursuant to §82.166.

5. Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to §82.156.

6. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to §82.166.

DD. EMERGENCY EPISODE PLAN

The permittee shall comply with the requirements contained in Chapter 9.7 of the State of Montana Air Quality Control Implementation Plan.

Each major source emitting 100 tons per year located in a Priority I Air Quality Control Region, shall submit to the Department a legally enforceable Emergency Episode Action Plan (EEAP) that details how the source will curtail emissions during an air pollutant emergency episode. The industrial EEAP shall be in accordance with the Department's EEAP and shall be submitted according to a timetable developed by the Department, following Priority I reclassification.

EE. DEFINITIONS

Terms not otherwise defined in this permit or in the Definitions and Abbreviations Appendix of this permit, shall have the meaning assigned to them in the referenced regulations.

APPENDICES

APPENDIX A
INSIGNIFICANT EMISSION UNITS

Disclaimer: None of the information found in this Appendix shall be considered to be State or Federally enforceable; it is presented to assist the facility, permitting authority, inspectors, and citizens.

List of Insignificant Activities

The following table of insignificant sources and/or activities was provided by the permittee to assist in the understanding of the facility layout. Currently, there are no requirements to update such a list so sources and/or activities may have changed since the last filing.

Insignificant Emissions Unit ID	Description
IEU1	Fugitive emissions from in-plant vehicle traffic

APPENDIX B
DEFINITIONS and ABBREVIATIONS

"**Act**" means the Clean Air Act, as amended, 42 U.S. 7401, *et seq*.

"**Administrative permit amendment**" means an air quality operating permit revision that:

(a) Corrects typographical errors;

(b) Identifies a change in the name, address, or phone number of any person identified in the air quality operating permit, or identifies a similar minor administrative change at the source;

(c) Requires more frequent monitoring or reporting by the permittee;

(d) Requires changes in monitoring or reporting requirements that the Department deems to be no less stringent than current monitoring or reporting requirements;

(e) Allows for a change in ownership or operational control of a source if the Department has determined that no other change in the air quality operating permit is necessary, consistent with ARM 17.8.1225; and

(f) Incorporates any other type of change which the Department has determined to be similar to those revisions set forth in (a)-(e).

"**Applicable requirement**" means all of the following as they apply to emission units in a source requiring an air quality operating permit (including requirements that have been promulgated or approved by the Department or the administrator through rule making at the time of issuance of the air quality operating permit, but have future-effective compliance dates, provided that such requirements apply to sources covered under the operating permit):

(a) Any standard, rule, or other requirement, including any requirement contained in a consent decree or judicial or administrative order entered into or issued by the Department, that is contained in the Montana State Implementation Plan approved or promulgated by the administrator through rule making under Title I of the FCAA;

(b) Any federally enforceable term, condition or other requirement of any air quality preconstruction permit issued by the Department under subchapters 7, 8, 9, and 10 of this chapter, or pursuant to regulations approved or promulgated through rule making under Title I of the FCAA, including parts C and D;

(c) Any standard or other requirement under Sec. 7411 of the FCAA, including Sec. 7411(d);

(d) Any standard or other requirement under Sec. 7412 of the FCAA, including any requirement concerning accident prevention under Sec. 7412(r)(7), but excluding the contents of any risk management plan required under Sec. 7412(r);

(e) Any standard or other requirement of the acid rain program under Title IV of the FCAA or regulations promulgated thereunder;

(f) Any requirements established pursuant to Sec. 7661c(b) or Sec. 7414(a)(3) of the FCAA;

(g) Any standard or other requirement governing solid waste incineration, under Sec. 7429 of the FCAA;

(h) Any standard or other requirement for consumer and commercial products, under Sec. 7511b(e) of the FCAA;

(i) Any standard or other requirement for tank vessels, under Sec. 7511b(f) of the FCAA;

(j) Any standard or other requirement of the regulations promulgated to protect stratospheric ozone under Title VI of the FCAA, unless the administrator determines that such requirements need not be contained in an air quality operating permit;

(k) Any national ambient air quality standard or increment or visibility requirement under part C of Title I of the FCAA, but only as it would apply to temporary sources permitted pursuant to Sec. 7661c(e) of the FCAA; or

(l) Any federally enforceable term or condition of any air quality open burning permit issued by the Department under subchapter 6.

"**Department**" means the Montana Department of Environmental Quality.

"**Emissions unit**" means any part or activity of a stationary source that emits or has the potential to emit any regulated air pollutant or any pollutant listed under Sec. 7412(b) of the FCAA. This term is not meant to alter or affect the definition of the term "unit" for purposes of Title IV of the FCAA.

"**FCAA**" means the Federal Clean Air Act, as amended.

"**Federally enforceable**" means all limitations and conditions which are enforceable by the administrator, including those requirements developed pursuant to 40 CFR Parts 60 and 61, requirements within the Montana State Implementation Plan, and any permit requirement established pursuant to 40 CFR 52.21 or under regulations approved pursuant to 40 CFR Part 51, Subpart I, including operating permits issued under an EPA approved program that is incorporated into the Montana State Implementation Plan and expressly requires adherence to any permit issued under such program.

"**Fugitive emissions**" means those emissions, which could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening.

"**General air quality operating permit**" or "**general permit**" means an air quality operating permit that meets the requirements of ARM 17.8.1222, covers multiple sources in a source category, and is issued in lieu of individual permits being issued to each source.

"**Hazardous air pollutant**" means any air pollutant listed as a hazardous air pollutant pursuant to section 112(b) of the FCAA.

"**Non-federally enforceable requirement**" means the following as they apply to emission units in a source requiring an air quality operating permit:

(a) Any standard, rule, or other requirement, including any requirement contained in a consent decree, or judicial or administrative order entered into or issued by the Department, that is not contained in the Montana State Implementation Plan approved or promulgated by the administrator through rule making under Title I of the FCAA

(b) Any term, condition or other requirement contained in any air quality preconstruction permit issued by the Department under Subchapters 7, 8, 9, and 10 of this chapter that is not federally enforceable;

(c) Does not include any Montana ambient air quality standard contained in Subchapter 2 of this chapter.

"**Permittee**" means the owner or operator of any source subject to the permitting requirements of this subchapter, as provided in ARM 17.8.1204, that holds a valid air quality operating permit or has submitted a timely and complete permit application for issuance, renewal, amendment, or modification pursuant to this subchapter.

"**Regulated air pollutant**" means the following:

(a) Nitrogen oxides or any volatile organic compounds;

(b) Any pollutant for which a national ambient air quality standard has been promulgated;

(c) Any pollutant that is subject to any standard promulgated under Sec. 7411 of the FCAA;

(d) Any Class I or II substance subject to a standard promulgated under or established by Title VI of the FCAA; or

(e) Any pollutant subject to a standard or other requirement established or promulgated under Sec. 7412 of the FCAA, including but not limited to the following:

(i) Any pollutant subject to requirements under Sec. 7412(j) of the FCAA. If the administrator fails to promulgate a standard by the date established in section 7412(e) of the FCAA, any pollutant for which a subject source would be major shall be considered to be regulated on the date 18 months after the applicable date established in section 7412(e) of the FCAA; and

(ii) Any pollutant for which the requirements of Sec. 7412(g)(2) of the FCAA have been met but only with respect to the individual source subject to Sec. 7412(g)(2).

"**Responsible official**" means one of the following:

(a) For a corporation: a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:

(i) The facilities employ more than 250 persons or have gross annual sales or expenditures exceeding $25 million (in second quarter 1980 dollars); or

(ii) The delegation of authority to such representative is approved in advance by the Department.

(b) For a partnership or sole proprietorship: a general partner or the proprietor, respectively.

(c) For a municipality, state, federal, or other public agency: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a regional administrator of the environmental protection agency).

(d) For affected sources: the designated representative in so far as actions, standards, requirements, or prohibitions under Title IV of the FCAA or the regulations promulgated thereunder are concerned, and the designated representative for any other purposes under this subchapter.

ACRONYMS and ABBREVIATIONS

AFR	Air to Fuel Ratio
ARM	Administrative Rules of Montana
BACT	Best Available Control Technology
Btu	British thermal unit
CFR	Code of Federal Regulations
CO	carbon monoxide
DEQ	Department of Environmental Quality
EPA	U.S. Environmental Protection Agency
EU	emissions unit
FCAA	Federal Clean Air Act
FERC	Federal Energy Regulatory Commission
HAP	hazardous air pollutant
hp	horse power
hr	hour
hr/yr	hours per year
IEU	insignificant emissions unit
lb/hr	pounds per hour
MCA	Montana Code Annotated
MBtu	thousand British thermal units
MMBtu	million British thermal units
MMscf	million standard cubic feet
NESHAPS	National Emission Standards for Hazardous Air Pollutants
NG	natural gas
NO_X	oxides of nitrogen
NSPS	New Source Performance Standards
O_2	oxygen
Pb	lead
PM	particulate matter
PM_{10}	particulate matter less than 10 microns in size
ppm	parts per million
psi	pounds per square inch
rpm	revolutions per minute
scf	standard cubic feet
SIC	Source Industrial Classification
SO_X	oxides of sulfur
SO_2	sulfur dioxide
TPY	tons per year
USC	United States Code
VE	visible emissions
VOC	volatile organic compound

APPENDIX C
NOTIFICATION ADDRESSES

Compliance Notifications:

Montana Department of Environmental Quality
Permitting and Compliance Division
Air and Waste Management Bureau
P.O. Box 200901
Helena, MT 59620-0901

United States EPA
Air Program Coordinator
Region VIII, Montana Office
10 W. 15th Suite 3200
Helena, MT 59626

Permit Modifications:

Montana Department of Environmental Quality
Permitting and Compliance Division
Air and Waste Management Bureau
P.O. Box 200901
Helena, MT 59620-0901

Office of Partnerships and Regulatory Assistance
Air and Radiation Program
US EPA Region VIII 8P-AR
999 18th Street, Suite 300
Denver, Colorado 80202-2466

APPENDIX D
AIR QUALITY INSPECTOR INFORMATION

Disclaimer: The information in this appendix is not State or Federally enforceable but is presented to assist the permittee, permitting authority, inspectors, and the public.

1. **Directions to Plant:** Located approximately 4 miles south of Glendive, Montana. The generating station is bordered on the west by Marsh Road.

2. **Safety Equipment Required:** Hard hat, steel-toed shoes/boots, and hearing protection (ear plugs will be provided by MDU) are required at the facility. A detailed safety manual is available at the site, and an MDU employee will conduct a safety briefing for any inspector prior to entering the plant area.

3. **Facility Plot Plan:** The facility plot plan was submitted as part of the application on 08/22/97.

APPENDIX E
ACID RAIN

Please see the following page for the EPA Phase II Permit Application.

APPENDIX F
NO_X CEMS/PEMS

Nothing in this appendix is intended to alter the requirements in the Acid Rain Appendix.

1. Pursuant to 40 CFR Part 75, MDU shall calibrate, maintain, and operate continuous monitoring systems and predictive emissions monitoring systems.

   The monitoring systems shall be capable of determining emissions in the units of the applicable standards.

   Except for system breakdowns, repairs, calibration checks, and zero and span adjustments required pursuant to 40 CFR Part 75, all continuous monitoring systems and predictive emissions monitoring systems shall be in continuous operation.

2. Compliance with 40 CFR Part 75 shall be deemed compliance with the requirements contained in 40 CFR §60.13(a) through (c), (e) through (g), and (i) through (j) and 40 CFR §60.45(c).

3. MDU shall conduct a "Standard Practice for Ultimate Analysis of Coal and Coke", ASTM D5291-92, at a minimum of once per year for each fuel used.

4. MDU shall determine the gross calorific value (GCV) of the fuels using ASTM D2015-91, "Standard Test Method for Gross Calorific Value of Coal and Coke by the Adiabatic Bomb Calorimeter" or other method as identified in 40 CFR Part 75, Appendix F, §3.3.6.2, at a minimum of once per year for each fuel used.

5. MDU shall conduct a weekly fuel analysis using ASTM D4239-85 or other method approved by the Department.

6. MDU shall maintain records for a minimum of five (5) years of the log sheets, computerized data, analysis, and calculations used to prepare the required reports.

7. MDU shall submit quarterly reports to the Department containing the information required by 40 CFR §60.7 and as required below. All reports shall be required semiannually for each six-month period.

   a. MDU shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which the continuous monitoring system or predictive emission monitoring sysem is inoperative.

   b. MDU shall submit an excess emissions and monitoring systems performance report and/or a summary report form (see paragraph (c) below) to the Department. Written reports of excess emissions shall be reported in the units of the standard exceeded and shall include the following information:

      i. The magnitude of excess emissions, any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions. The process operating time during the reporting period.

ii. Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted.

iii. The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.

iv. When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.

c. The summary report form shall contain the information and be in the format shown in Figure 1. The summary report form shall be submitted

i. If the total duration of excess emissions for the reporting period is less than 1 percent of the total operating time for the reporting period and CEMS downtime for the reporting period is less than 5 percent of the total operating time for the reporting period, only the summary report form shall be submitted and the excess emission report described in section (b) above need not be submitted unless requested.

ii. If the total duration of excess emissions for the reporting period is 1 percent or greater of the total operating time for the reporting period or the total CEMS or PEMS downtime for the reporting period is 5 percent or greater of the total operating time for the reporting period, the summary report form and the excess emission report described in section (b) above shall both be submitted.

Figure 1--Summary Report--Gaseous Excess Emission and Monitoring System Performance

Pollutant:
Reporting period dates: From _____ to _____
Emission Limitation:
Monitor Manufacturer and Model No.:
Date of Latest CEMS or PEMS Certification or Audit:
Process Unit(s) Description:
Total source operating time in reporting period:

Emission Data Summary

1. Duration of excess emission in reporting period due to:
   a. Startup/shutdown.
   b. Control equipment problems.
   c. Process problems.
   d. Other known causes.
   e. Unknown causes.
2. Total duration of excess emissions.
3. Total duration of excess emissions x (100) = % excess emissions
   Total Boiler Operating Time

CEMS/PEMS Performance Summary

1. CEMS/PEMS downtime in reporting period due to:
   a. Monitor equipment malfunctions.
   b. Non-Monitor equipment malfunctions.
   c. Quality assurance calibrations.
   d. Other known causes.
   e. Unknown causes.
2. Total CEMS/PEMS Downtime when the boiler is operating (nearest quarter hour).
3. Total CEMS/PEMS downtime when the boiler is operating x 100 = % downtime
   Total boiler operating time
4. Total boiler operating time (nearest quarter hour).

The semiannual reports must be postmarked by the 30th day after the end of each six-month period.

8. MDU shall submit quarterly reports to the Department containing the following information for each month of the quarter:
   a. Monthly average coal analysis;
   b. Coal consumption;
   c. Other fuels combusted and the amount;
   d. Tons of emissions calculated as the sum of $E_h=K \times C_h \times Q_h$ where E_h = emission rate (lb/hr), $K = 1.19 \times 10^{-7}$ (lb/scf)/ppm (NOx), C_h = Measured Pollutant Concentration (ppm_{wet}), and Q_h = Measured Stack Gas Flow Rate ($SCFH_{wet}$); and
   e. A summary report including the information identified in 40 CFR §75.64 (a)(3) through (5) in writing, which includes:
      i. Average NO_X emission rate (lb/mmBtu, rounded to the nearest hundredth) during the quarter and cumulative NO_X emission rate for calendar year.

ii. Tons of CO_2 emitted during quarter and cumulative CO_2 for calendar year.
iii. Total heat input (mmBtu) for quarter and cumulative heat input for calendar year.

The quarterly reports must be postmarked by the 30th day after the end of the calendar quarter.

9. MDU shall submit copies of all RATAs performed to the Department in accordance with ARM 17.8.106, Source Testing Protocol.

10. MDU shall submit copies of each monitoring plan revision, which results in the need to a recertify the CEM/PEM.